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Energy Situation Analysis Report

Last Updated: December 3, 2002
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Latest Oil Market Developments

The West Texas Intermediate (WTI) front month (January) crude oil futures price on the New York Mercantile Exchange (NYMEX) rose 35 cents per barrel to settle at $27.24 per barrel on Monday (12/2/02), on news of a general strike in Venezuela and continued arms inspections in Iraq. Monday's settling price marked the highest NYMEX front month settling price in over a month. Oil prices were up slightly today, as markets continue to watch the the strike in Venezuela, which is now in its second day, as well as two approaching deadlines concerning Iraq. more...

Latest U.S. Weekly EIA Petroleum Information

The U.S. average retail price for regular gasoline fell last week for the fourth week in a row, decreasing by 1.6 cents per gallon as of December 2 to end at 136.4 cents per gallon. Although this price is 25.6 cents per gallon higher than last year, it has dropped by 7.5 cents per gallon over the last three weeks. Regionally, Midwest states have seen the largest decreases in prices over the past three weeks (15.4 cents), while New England saw a slight (0.1 cent) increase this week. more...

World Oil Market Highlights

According to fourth quarter 2002 estimates, the world (excluding Iraq) holds as high as 4.9 million barrels per day of excess oil production capacity that could be brought online. Nearly all of this "excess capacity" lies in OPEC member countries. more...

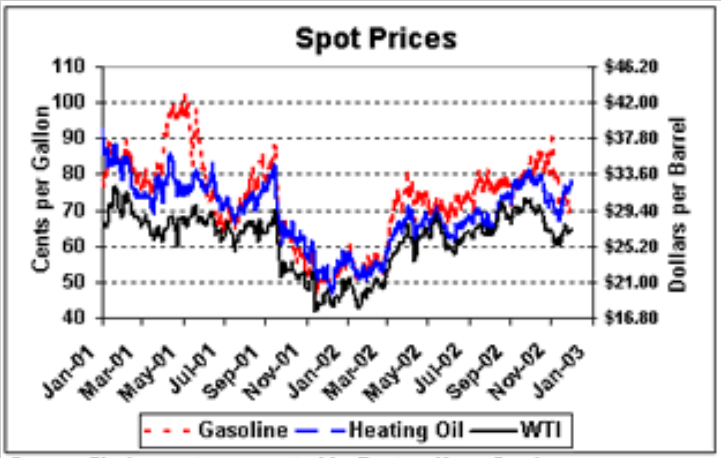
Latest U.S. Weekly Natural Gas Information

Cold weather has contributed to a rise in natural gas spot market prices at most market locations that serve the Northeast. Spot transactions at the Henry Hub traded yesterday (Monday, December 2) at $4.23 per MMBtu,

Energy Prices*

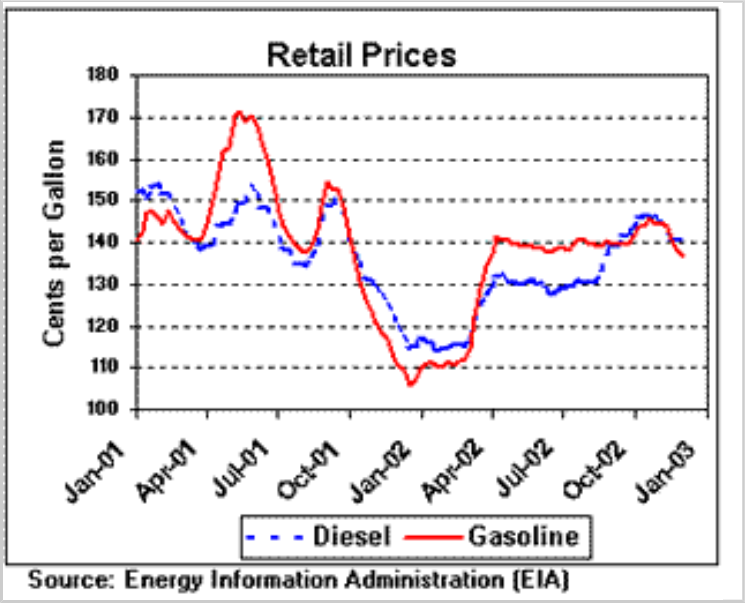
Petroleum Futures	12/2/02	11/27/02	Change
WTI ($/Bbl)	27.24	26.89	+0.35
Gasoline (c/gallon)	74.39	73.43	+0.96
Heating Oil (c/gallon)	77.39	75.71	+1.68
Natural Gas ($/MMBtu)			
Henry Hub	4.23	4.19	+0.04
California	4.01	4.00	+0.01
New York City	6.14	4.95	+1.19
Electricity ($/Megawatthour)			
COB	40.20	36.56	+3.64
PJM West	42.23	24.54	+17.69
NEPOOL	51.00	42.00	+9.00
Average	41.47	36.62	+4.85

*Definitions



Source: Closing quote as reported by Reuters News Service

while at Transco Zone 6 near New York City spot prices were $6.14 per MMBtu-a rise of $1.14 from the previous trading day, Wednesday, November 27. In the Midwest, the price increase was not as sharp as the reported spot prices in Chicago increased eight cents to $4.17 per MMBtu yesterday. In the West, prices in California moved up slightly to average $4.01 per MMBtu. more...



Latest U.S. Coal Information

Although spot coal prices continue flat, the Central Appalachian prices are mixed but not down dramatically. The reported drop to $27.25 for average Central Appalachian spot prices in the week ended November 15 was in error – a mix-up with a different Central Appalachian coal price than the Big Sandy/Kanawha coal EIA usually tracks. more...

Latest U.S. Electricity Information

In the Northeast, electricity prices were generally lower before the holiday. After reaching a low of $24.54 per megawatthour on November 27, electricity prices at PJM West jumped $17.69 per megawatthour to a high of $42.23 per megawatthour on December 2. Cooler weather increased customer demand. In New England, prices went down to $42.00 per megawatthour on November 27 and then spiked 21% to $51.00 per megawatthour on December 2.Over the past seven days, average prices at all trading centers ranged between $36.62 and $41.47 per megawatthour with an overall weekly average of $38.64 per megawatthour. more...

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Latest Oil Market Developments

(updated December 3, 2002)

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Topics affecting **world oil markets** include:

- United Nations' weapons inspectors returned to Iraq on Wednesday (11/27/02). Oil markets are looking ahead to two important dates this week, Wednesday December 4 and Saturday December 7. Wednesday (12/4/02) at midnight is the deadline for renewal of the U.N. "oil-for-food" program, which was extended temporarily last week. Security Council members have been deliberating the program's "goods review list" and are considering the addition of items the United States believes have "no legitimate civilian purpose". Next, Iraq has promised to deliver documentation detailing its military programs on Saturday (12/7/02), one day ahead of the schedule stipulated in U.N. Security Council Resolution 1441.
- On Monday (12/2/02), opponents of Venezuelan president Hugo Chavez organized a general strike, protesting the country's economic crisis and calling for an early referendum on Chavez's rule. According to press reports, the strike's organizers estimate that 80% of the country's oil workers back the strike and many managers and executives at Venezuelan state oil firm PdVSA did not show up for work on Monday. So far, observers have seen little impact on Venezuela's oil industry, which is the world's fifth largest net oil exporter and the fourth largest supplier of oil to the United States. The Chavez administration has made public statements guaranteeing oil supplies to both the internal and external markets. The strike has been extended another 24 hours, through Tuesday (12/3/02).
- OPEC will meet on December 12 in Vienna with some members (i.e., Venezuela) calling for strengthened compliance with oil output quotas. Algeria's Energy Minister, on the other hand, stated Monday (12/2/02) that his country will move ahead with requests to OPEC to raise Algeria's output quota from 691,000 barrels per day to 1.1 million barrels per day.
- As of December 3, 2002, the U.S. Strategic Petroleum Reserve (SPR) contained 595.0 million barrels of oil. The SPR has a maximum drawdown capability of 4.3 million bbl/d for 90 days,

with oil beginning to arrive in the marketplace 15 days after a presidential decision to initiate a drawdown. The SPR drawdown rate declines to 3.2 million bbl/d from days 91-120, to 2.2 million bbl/d for days 121-150, and to 1.3 million bbl/d for days 151-180.

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Latest U.S. Weekly EIA Petroleum Information

(updated December 3, 2002)

Petroleum Inventories
U.S. commercial crude oil inventories (excluding those in the Strategic Petroleum Reserve) fell by 3.9 million barrels the week ending November 22, partially reversing a sizable increase during the previous week. Nationally, they are 28.3 million barrels below the level last year at this time. In PADD II (Midwest), crude oil inventories fell to 54.2 million barrels, and are now at a new historical low since at least 1990. Distillate fuel inventories dropped by 2.9 million barrels, with decreases in both low-sulfur distillate fuel (diesel fuel) and high-sulfur distillate fuel (heating oil). Distillate fuel inventories are significantly below the lower limit of the normal range for this time of year. Motor gasoline inventories rose by 3.9 million barrels, and are just above the lower limit of the normal range for this time of year.

Following several weeks of steep declines, U.S. inventories of propane essentially remained flat during the week ending November 22 with inventories ending at an estimated 61.2 million barrels. Unseasonably cold weather during late October and early November apparently spurred many primary stockholders to begin shifting inventories closer to retail markets in anticipation of more cold weather. Although cold weather still persists in many areas of the nation that use propane to heat their homes, the sharp draw on U.S. inventories seen during this period may have abated as inventories now seem more balanced with expected consumer heating demand. Regional inventory activity shows the East Coast with the largest weekly draw of 0.2 million barrels, followed with the Midwest with a more modest 0.1 million barrels decline. At the same time the Gulf Coast reported an unexpected stock build measuring 0.3 million barrels, the first since the start of the heating season in October. Regional inventories remain above or at the upper limit of the average range in the East Coast and Gulf Coast areas last week while inventories in the Midwest region remain near the lower limit of the average range during this same time.

Petroleum Imports
U.S. crude oil imports (including imports going into the Strategic Petroleum Reserve) during the week ending November 22 averaged nearly 9.0 million barrels per day, down 1.2 million barrels per day from the extremely high average during the previous week. Crude oil imports have averaged over 9.3 million barrels per day over the last four weeks, or nearly 100,000 barrels per day more than averaged during the same four-week period last year. Total motor gasoline imports (including both finished gasoline and gasoline blending components) averaged about 900,000 thousand barrels per day last week, an increase from the previous week. Distillate fuel imports were relatively high, averaging nearly 500,000 barrels per day last week, the highest weekly average since the week ending March 2, 2001.

Monthly data on the sources of U.S. crude oil imports in September 2002 was released recently and it shows that four countries imported more than 1.3 million barrels per day of crude oil to the United States that month. The top sources of U.S. oil imports in September 2002 were Saudi Arabia (1.512 million barrels per day), Mexico (1.417 million barrels per day), Canada (1.412 million barrels per day), and Venezuela (1.302 million barrels per day). Rounding out the top ten sources, in order, were Nigeria (0.489 million barrels per day), Angola (0.329 million barrels per day), Norway (0.294 million barrels per day), Kuwait (0.286 million barrels per day), United Kingdom (0.278 million barrels per day), and Colombia (0.263 million barrels per day). Of the 8.796 million barrels per day of crude oil imported into the United States during the month of September 2002, the top four countries accounted for 65% of these imports, while the top ten sources accounted for nearly 87% of all U.S. crude oil imports. Iraqi crude oil imports, which averaged just 0.148 million barrels per day (ranking 12th amongst crude oil import sources) were the lowest monthly average since May 1998, while Russian crude oil imports averaged 0.104 million barrels per day, ranking 13th for the month, but the 2nd largest amount since June 1994 (only exceeded by the amount imported in May 2002).

Refinery Inputs and Production
U.S. crude oil refinery inputs averaged 15.2 million barrels per day during the week ending November 22, the highest weekly average since the week ending September 6. Increases occurred in all regions except in PADD I (East Coast). However, the increase in refinery inputs did not affect products equally as a large increase in motor gasoline refinery production was partially offset by a decline in distillate fuel refinery production, while jet fuel refinery production increased last week

Petroleum Demand
Total product supplied over the last four-week period averaged 19.8 million barrels per day, or about 1.4 percent more than the level last year. Over the last four weeks, motor gasoline demand is up 1.7 percent, kerosene-jet fuel demand is up 8.7 percent, and distillate fuel demand is up 4.6 percent compared to the same four-week period last year.

Spot Prices
The average world crude oil price on November 27, 2002 was $23.30 per barrel, up $0.78 per barrel from the previous week and $5.77 per barrel more than last year.. The spot price for conventional gasoline in the New York Harbor was 69.18 cents per gallon on Wednesday, November 27, down 5.52 cents per gallon from last week and 17.95 cents higher than a year ago (this was a Friday price due to Thanksgiving occurring one week earlier last year). The spot price for No. 2 heating oil in the New York Harbor was 75.48 cents per gallon, 1.32 cents per gallon lower than last week but 22.40 cents per

gallon more than last year (also a Friday price).

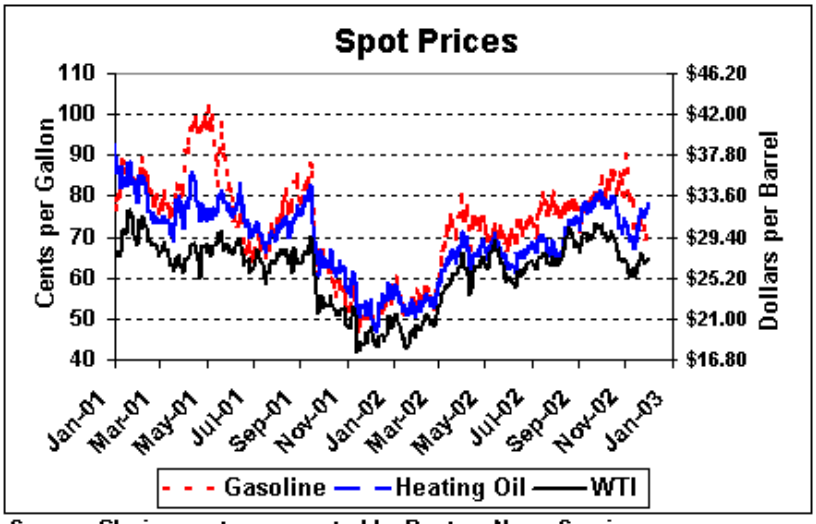
Retail Gasoline and Diesel Fuel Prices Fall Back Last Week
The U.S. average retail price for regular gasoline fell last week for the fourth week in a row, decreasing by 1.6 cents per gallon as of December 2 to end at 136.4 cents per gallon. Although this price is 25.6 cents per gallon higher than last year, it has dropped by 7.5 cents per gallon over the last three weeks. Regionally, Midwest states have seen the largest decreases in prices over the past three weeks (15.4 cents), while New England saw a slight (0.1 cent) increase this week.

Retail diesel fuel prices increased last week for the first time since October 28, rising to a national average of 140.7 cents per gallon as of December 2. Diesel fuel prices are not expected to soften significantly during the coming months, as distillate fuel inventories have dropped below the normal range this winter and are expected to remain low through 2003. Retail diesel prices were mixed, with the largest price increase occurring on the Gulf Coast, which saw the price rise by 0.7 cent per gallon to end at 134.7 cents per gallon. Prices fell in the Midwest, dropping by 0.2 cent to end at 141.0 cents per gallon.

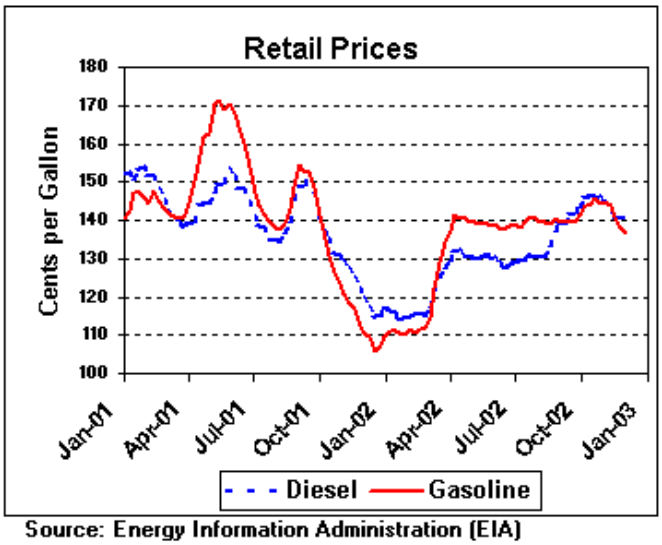
Residential Heating Fuel Prices Move Upward
Residential heating oil prices increased slightly for the period ending November 25, 2002. The average residential heating oil price was 127.9 cents per gallon, up 0.7 cent per gallon from the previous week. Residential propane prices also continued to move upward slightly by 0.7 cent per gallon, from 116.1 to 116.8 cents per gallon. Heating oil prices are 9.9 cents per gallon higher than last year at this time while residential propane are 3.6 cents higher than one year ago. Wholesale heating oil prices increased 6.2 cents per gallon, to 83.8 cents per gallon, while wholesale propane prices increased from 52.8 to 55.2 cents a gallon, up 2.4 cents per gallon.

U.S. Petroleum Prices

(updated December 3, 2002)



Source: Closing quote as reported by Reuters News Service



Source: Energy Information Administration (EIA)

Crude Oil and Oil Products Price Table

Date	WTI Crude Oil		Gasoline		Heating Oil		Kerojet	Propane		EIA Weekly Retail	
	Spot	Futures	Spot	Futures	Spot	Futures	Spot	Spot	Spot	US Average	
	Cushing		NYH		NYH		NYH	Mt. Belvieu	Conway	Gasoline	Diesel
	$/bbl	$/bbl	cents per gallon		cents per gallon		c/gal	cents per gallon		cents per gallon	
10/15/2002	$29.73	$29.72	84.47	83.99	78.80	79.98	84.35	47.94	46.88		
10/16/2002	$29.28	$29.47	84.65	83.93	78.79	79.96	83.64	48.25	47.00		
10/17/2002	$29.61	$29.62	85.75	83.98	79.85	80.77	84.05	48.63	47.00		
10/18/2002	$29.56	$29.60	85.90	85.17	79.90	80.35	83.25	48.82	47.50		
10/21/2002	$28.31	$28.37	80.54	81.03	75.66	76.29	79.49	47.68	46.75	145.8	146.9
10/22/2002	$27.93	$27.92	80.93	79.85	75.36	75.78	79.06	47.50	46.63		
10/23/2002	$28.19	$28.18	81.40	81.40	75.03	75.67	79.40	48.25	47.69		
10/24/2002	$27.87	$28.20	82.23	84.17	74.73	75.97	79.10	48.50	48.32		
10/25/2002	$27.09	$27.05	85.45	86.09	72.05	72.76	76.28	47.88	47.94		
10/28/2002	$27.25	$27.29	83.60	85.30	71.95	73.08	76.10	47.75	48.00	144.4	145.6
10/29/2002	$26.81	$26.86	80.05	82.27	70.55	71.55	74.90	47.75	48.00		
10/30/2002	$26.85	$26.81	80.80	82.83	72.55	72.77	76.05	47.88	47.94		
10/31/2002	$27.18	$27.22	79.65	86.35	74.50	74.38	77.85	48.25	48.69		
11/1/2002	$27.04	$27.13	85.25	76.45	73.90	74.16	76.60	48.38	49.63		
11/4/2002	$26.89	$26.95	89.93	77.43	73.08	73.33	75.53	47.88	49.07	144.8	144.2
11/5/2002	$26.06	$26.14	86.50	74.07	71.41	71.80	74.33	47.25	48.50		
11/6/2002	$25.72	$25.77	80.60	71.78	70.72	70.79	73.50	46.57	47.75		
11/7/2002	$25.36	$25.38	78.85	70.14	69.80	69.62	72.35	46.50	47.63		
11/8/2002	$25.83	$25.78	79.45	71.28	69.08	68.88	71.03	46.32	47.00		
11/11/2002	$26.02	$25.94	79.25	71.04	69.00	68.85	70.90	46.69	46.94	143.9	142.7
11/12/2002	$26.19	$25.90	78.20	69.84	69.75	69.01	71.73	46.57	46.82		
11/13/2002	$25.28	$25.19	72.00	68.54	67.30	67.25	69.55	45.75	46.00		
11/14/2002	$25.40	$25.29	72.23	69.76	67.90	67.69	70.15	45.25	45.57		
11/15/2002	$25.50	$25.51	72.10	69.73	68.80	68.85	70.90	46.38	45.82		
11/18/2002	$26.71	$26.71	74.20	71.94	72.30	72.28	74.68	47.25	47.75	140.9	140.5
11/19/2002	$26.41	$26.42	71.75	70.16	71.90	72.17	74.38	47.25	48.25		
11/20/2002	$27.00	$26.98	72.85	71.29	74.80	74.51	76.93	47.82	48.94		
11/21/2002	$27.07	$26.35	73.13	72.42	74.80	74.93	76.18	48.25	49.51		
11/22/2002	$27.73	$26.76	74.70	74.87	76.80	76.64	78.18	48.25	49.32		
11/25/2002	$27.01	$26.11	71.70	71.55	74.85	75.04	76.10	47.75	48.25	138.0	140.5
11/26/2002	$26.60	$26.40	72.60	72.53	76.08	75.75	76.33	47.88	48.38		
11/27/2002	$26.87	$26.89	69.18	73.43	75.48	75.71	75.98	48.26	48.75		
11/28/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA		
11/29/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA		
12/2/2002	$27.27	$27.24	72.77	74.39	77.80	77.39	78.20	48.57	49.19	136.4	140.7

Source: Spot and futures closing quotes as reported by Reuters News Service, retail prices reported by EIA

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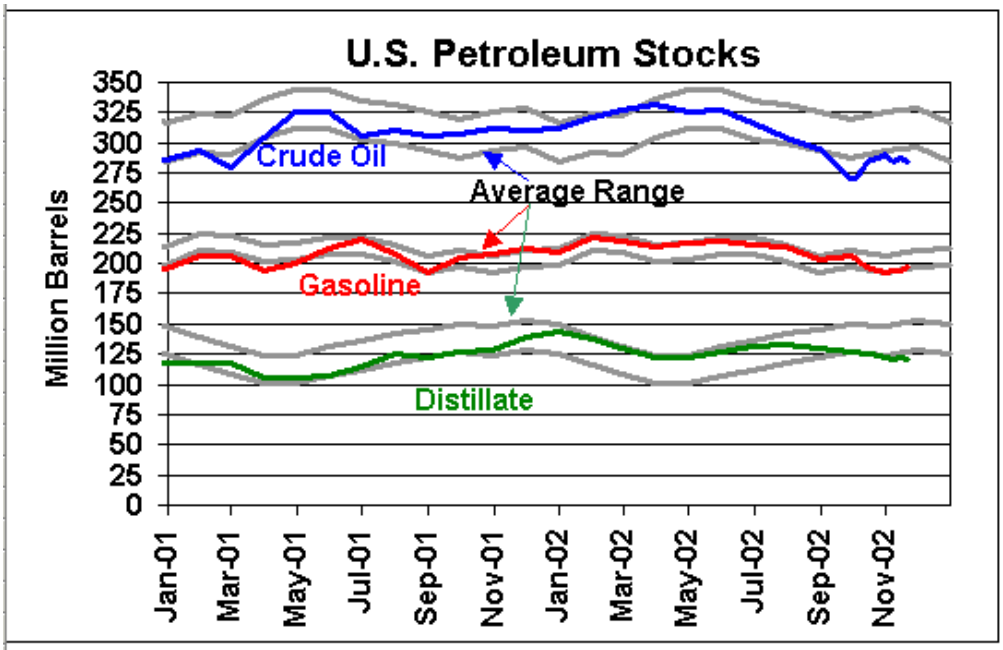
U.S. Petroleum Supply

(Thousand Barrels per Day)	Four Weeks Ending		vs. Year Ago	
	11/22/2002	11/22/2001	Diff.	% Diff.
Refinery Activity				
Crude Oil Input	14,977	15,001	-24	-0.2%
Operable Capacity	16,800	16,512	289	1.7%
Operable Capacity Utilization (%)	90.0%	92.2%	-2.2%	
Production				
Motor Gasoline	8,485	8,386	99	1.2%
Jet Fuel	1,533	1,413	120	8.5%
Distillate Fuel Oil	3,628	3,925	-297	-7.6%
Imports				
Crude Oil (incl. SPR)	9,348	9,293	55	0.6%
Motor Gasoline	908	731	178	24.3%
Jet Fuel	126	94	32	34.4%
Distillate Fuel Oil	343	246	97	39.3%
Total	11,781	11,566	215	1.9%
Exports				
Crude Oil	10	10	1	5.3%
Products	964	947	17	1.8%
Total	974	957	18	1.8%
Products Supplied				
Motor Gasoline	8,823	8,672	151	1.7%
Jet Fuel	1,603	1,475	128	8.7%
Distillate Fuel Oil	3,957	3,782	175	4.6%
Total	19,780	19,503	277	1.4%

			vs. Year Ago	
Stocks (Million Barrels)	11/22/2002	11/22/2001	Diff.	% Diff.
Crude Oil (excl. SPR)	284.2	312.5	-28.3	-9.1%
Motor Gasoline	197.4	210.9	-13.5	-6.4%
Jet Fuel	41.2	40.2	1.0	2.5%
Distillate Fuel Oil	120.0	135.9	-15.9	-11.7%
Total (excl. SPR)	975.9	1,037.8	-61.9	-6.0%



Source: Energy Information Administration, Weekly Petroleum Status Report, Petroleum Supply Monthly.

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World Oil Market Highlights

(updated November 12, 2002)

According to fourth quarter 2002 estimates, the world (excluding Iraq) holds as much as 4.9 million barrels per day of excess oil production capacity that could be brought online. Nearly all of this "excess capacity" is located in OPEC member countries.

OPEC Crude Oil Production [1]
(Thousand barrels per day)

	3Q 2002 Production	4Q 2002 Production	1/01/02 Quota[2]	2002 Production Capacity[3]	4Q Surplus Capacity[3]
Algeria	876	900	693	1,100	200
Indonesia	1,112	1,100	1,125	1,200	100
Iran	3,402	3,500	3,186	3,850	350
Kuwait[4]	1,923	1,950	1,741	2,400	450
Libya	1,333	1,340	1,162	1,400	60
Nigeria	1,949	2,000	1,787	2,300	300
Qatar	650	670	562	850	180
Saudi Arabia[4]	7,743	7,933	7,053	10,000-10,500[5]	2,067-2,567[5]
UAE[6]	1,987	2,000	1,894	2,600	600
Venezuela[7]	2,733	2,900	2,497	2,950	50
OPEC 10 Crude Oil Total	**23,707**	**24,293**	**21,700**	**28,650-29,150[5]**	**4,357-4,857[5]**
Iraq[8]	1,719	2,232	N/A	2,900	668

OPEC Crude Oil Total	**25,426**	**26,524**	N/A	**31,550-32,050[5]**	**5,026-5,526[5]**
Other Liquids[9]	2,761	2,761	N/A		
Total OPEC Production	**28,187**	**29,285**	N/A		

NA: Not Applicable

[1]Crude oil does not include lease condensate or natural gas liquids.

[2]Quotas are based on crude oil production only.

[3]Maximum sustainable production capacity, defined as the maximum amount of production that: 1) could be brought online within a period of 30 days; and 2) sustained for at least 90 days.

[4]Kuwaiti and Saudi Arabian figures each include half of the production from the Neutral Zone between the two countries. Saudi Arabian production also includes oil produced from its offshore Abu Safa field on behalf of Bahrain.

[5] Saudi Arabia is the only country with the capability to further increase its capacity significantly within 90 days. Saudi Arabia can increase its sustainable production capacity to 10 million barrels per day within 30 days and to 10.5 million barrels per day within 90 days. As a result, the estimates for Saudi Arabia are as shown as a range, with the lower figure using the 30 days' definition and the upper end reflecting Saudi Arabia's 90 days' capability. OPEC's surplus capacity estimates are also shown as a range for this reason.

[6]The UAE is a federation of seven emirates. The quota applies only to the emirate of Abu Dhabi, which controls the vast majority of the UAE's economic and resource wealth.

[7]Venezuelan capacity and production numbers exclude extra heavy crude oil used to produce Orimulsion.

[8]Iraqi oil exports are approved by the United Nations under the oil-for-food program for Iraq established by Security Council Resolution 986 (April 1995) and subsequent resolutions. As a result, Iraqi production and exports have not been a part of any recent OPEC agreements. Resolution 986 limited the sale of Iraqi crude oil over six-month periods to specified dollar amounts. However, the Security Council voted to remove any limits on the amount of oil Iraq could export in December 1999.

9Other liquids include lease condensate, natural gas liquids, and other liquids including volume gains from refinery processing.

Major Sources of U.S. Petroleum Imports, Jan.-August 2002*

(all volumes in million barrels per day)

	Total Oil Imports	Crude Oil Imports	Petroleum Product Imports
Canada	1.89	1.39	0.50
Saudi Arabia	1.51	1.48	0.03
Mexico	1.50	1.46	0.04
Venezuela	1.39	1.19	0.20
Nigeria	0.60	0.57	0.03
Iraq	0.52	0.52	0.00
United Kingdom	0.46	0.39	0.07
Norway	0.41	0.36	0.05
Angola	0.32	0.31	0.01
Algeria	0.28	0.03	0.25

Total Imports	11.30	9.01	2.29

** Table includes all countries from which the U.S. imported more than 300,000 barrels per day in Jan.-August 2002.*

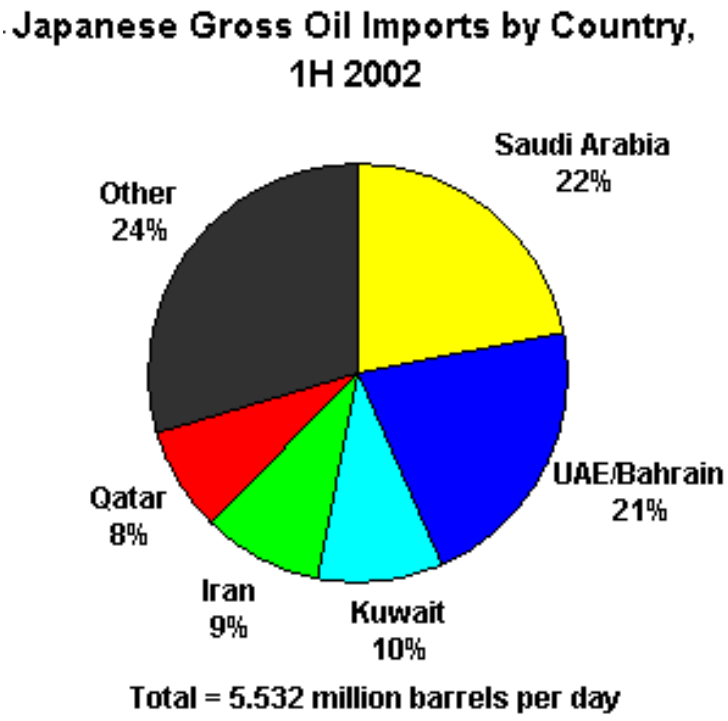
Top World Oil Net Exporters, Jan.-Aug. 2002*		
	Country	**Net Exports (million barrels per day)**
1)	Saudi Arabia	6.10
2)	Russia	4.67
3)	Norway	2.81
4)	Iran	2.35
5)	Venezuela	2.20
6)	Nigeria	1.84
7)	United Arab Emirates	1.72
8)	Iraq	1.45
9)	Kuwait	1.45
10)	Mexico	1.21
11)	Libya	1.12
12)	Algeria	1.04

**Table includes all countries with net exports exceeding 1 million barrels per day in Jan.-Aug 2002.*

During the first five months of 2002, about half of U.S. crude oil imports came from the Western Hemisphere (17% from South America, 16% from Mexico, 15% from Canada, 2% from the Caribbean), while 27% came from the Persian Gulf region (17% from Saudi Arabia, 8% from Iraq, 2% from Kuwait).

In general, OECD Europe depends far more heavily on the Persian Gulf and North Africa for oil imports than does the United States. Japan receives over three-quarters of its oil supplies from the Persian Gulf (mainly the UAE, Saudi Arabia, Kuwait, Iran, and Qatar) with the remainder coming from Indonesia, China, and other sources.

Having provided this information, it is important to stress that oil is a "fungible" (interchangeable, traded on a world market) commodity, that a disruption of oil flows anywhere will affect the price of oil everywhere, and that the specific suppliers of oil to a particular country or region are not of enormous significance, at least from an economic point of view.



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Definitions

Petroleum

WTI – West Texas Intermediate (for the purposes of this table, prices provided are near month futures price) Cushing OK.

Bbl – Barrel (42 gallons).

C's – cents.

Natural Gas

Henry Hub – A pipeline hub on the Louisiana Gulf coast. It is the delivery point for the natural gas futures contract on the New York Mercantile Exchange (NYMEX).

Electricity

COB – average price of electricity traded at the California-Oregon and Nevada-Oregon border.

Palo Verde - average price of electricity traded at Palo Verde and West Wing Arizona.

Average - average price of electricity traded at all locations.

Latest U.S. Weekly Natural Gas Information

(updated December 3, 2002)

Industry/Market Developments

EIA Releases Annual Energy Outlook 2003, With Gas Projections Through 2025: On Wednesday, November 20, EIA released the reference case from its soon-to-be published Annual Energy Outlook 2003, projecting a growth of 54% in gas demand by the year 2025. Growing at an average annual rate of 1.8%, total consumption is projected to increase from 22.7 Tcf in 2001 to 34.9 Tcf in 2025, with most of the increase going to supply expanding gas-fired electricity generation. EIA foresees the need for major new domestic supply projects, such as from deepwater offshore wells and an Alaskan pipeline, and increased imported supplies, including new and expanded LNG facilities and the Mackenzie Delta Pipeline in Canada, in order to be able to meet the growth in demand. Total natural gas imports are projected to satisfy 22% of total U.S. demand in 2025, up from 16% in 2001. EIA also predicts higher prices by 2025, as increased demand will outstrip the ability of technology improvements and new supply sources to offset resource depletion. EIA projects that the average wellhead price will be about $3.90 per Mcf, or about $3.80 per MMBtu, in 2025, which is equivalent to more than $7 per Mcf ($6.83 per MMBtu) in nominal dollars.

MMS Announces New World Records for Deepwater Pipelines and Production: New production from the Camden Hills field about 150 miles southeast of New Orleans has set a world water-depth record, according to the Minerals Management Service (MMS). The MMS announced on November 18 that Marathon Oil Company set the world record with production from the Camden Hills field at a water depth of 7,209 feet, which exceeds by about 100 feet the previous record set in the nearby Aconcagua field. Marathon Oil Company, which discovered the Camden Hills field in 1999, is the operator of the production facilities. The MMS stated that production is currently 100 million cubic feet per day. TotalFinaElf has also set a world record in the vicinity for laying a pipeline to the production site at the same water-depth. The pipeline is part of the Canyon Express gas gathering system, which is a collaboration among several operators that connects the Camden Hills, Aconcagua, and Kings Peak natural gas fields. MMS said that peak flow on the Canyon Express line will be 500 million cubic feet per day.

Storage

Working gas in storage was 3,047 Bcf as of Friday, November 22, 2002, according to EIA's Weekly Natural Gas Storage Report, which is 3.4% above the average for the prior 5 years (1997-2001). This represents a net decline of 49 Bcf from the previous week. Stocks were 100 Bcf above the 5-year average of 2,947 Bcf, however they were 203 Bcf less than last year.

All Volumes in Bcf	Current Stocks 11/22/2002	Estimated Prior 5-year (1997-2001) Average	Percent Difference from 5-Year Average	Implied Net Change from Last Week	One-Week Prior Stocks 11/15/2002
East Region	1,809	1,805	0.2%	-31	1,840
West Region	415	359	15.6%	2	413
Producing Region	823	784	5.0%	-20	843
Total Lower 48	3,047	2,947	3.4%	-49	3,096

Source: Energy Information Administration: Form EIA-912, "Weekly Underground Natural Gas Storage Report," and the Historical Weekly Storage Estimates Database.

Prices:

Lower than normal temperatures, which began last week in the Northeast, have continued as daytime highs are expected to be in the mid 30's in much of the region during the first week of December. The cold weather has contributed to a rise in spot market prices at most market locations that serve the Northeast. Spot transactions at the Henry Hub traded yesterday (Monday, December 2) at $4.23 per MMBtu, while at Transco Zone 6 near New York City spot prices were $6.14 per MMBtu-a rise of $1.14 from the previous trading day, Wednesday, November 27. In the Midwest, the price increase was not as sharp as the reported spot prices in Chicago increased 8 cents to $4.17 per MMBtu yesterday. In the West, prices in California moved up slightly to average $4.01 per MMBtu.

At the NYMEX, trading on the December contract closed on Tuesday, November 26, at $4.14 per MMBtu. This was down almost $0.25 from its high of $4.389 on October 30, 2002. The January contract began trading as the near-month contract at $4.20 on November 27 and settled yesterday at $4.32 per MMBtu.

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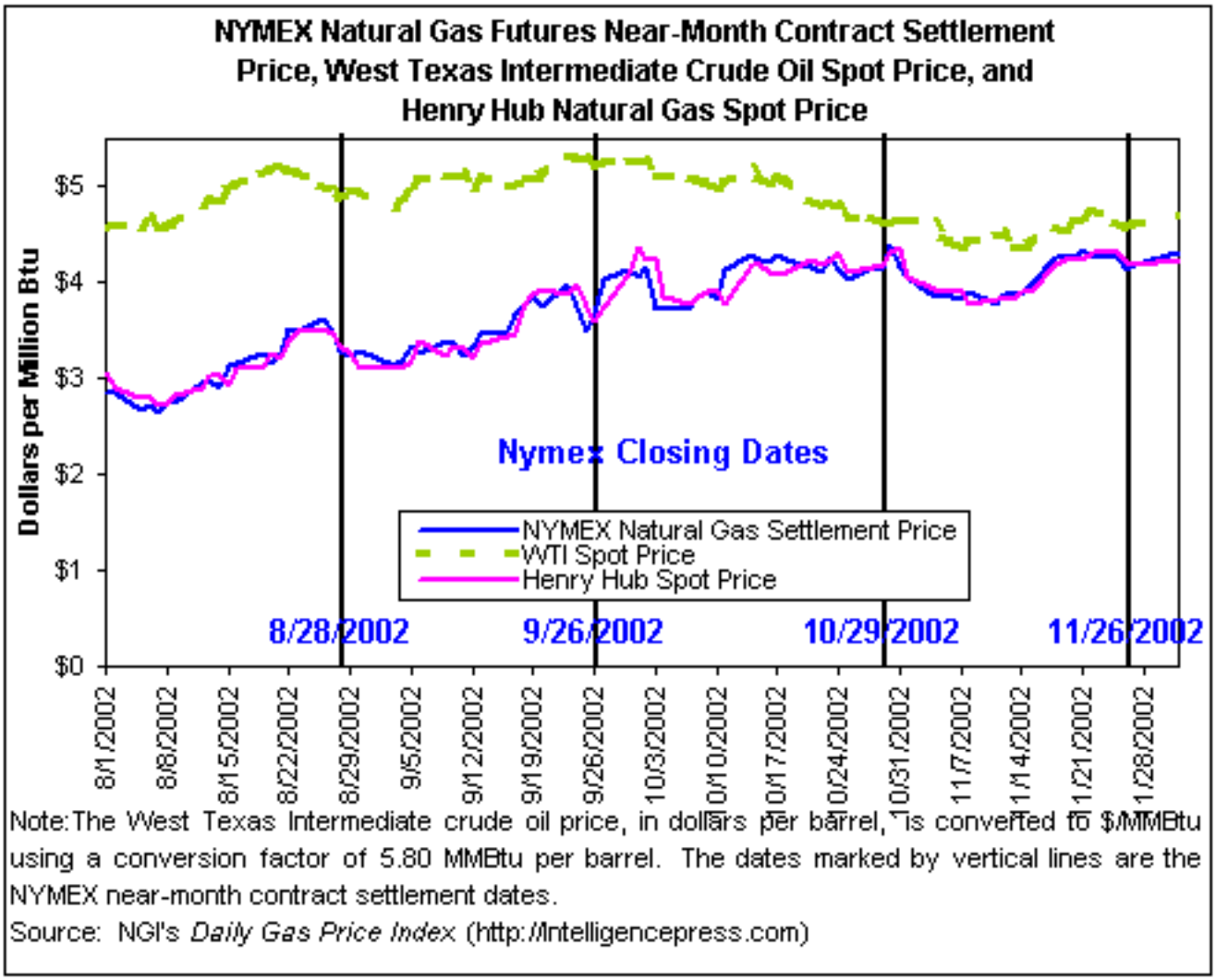

Note: The West Texas Intermediate crude oil price, in dollars per barrel, is converted to $/MMBtu using a conversion factor of 5.80 MMBtu per barrel. The dates marked by vertical lines are the NYMEX near-month contract settlement dates.

Source: NGI's *Daily Gas Price Index* (http://intelligencepress.com)

Trade Date (All prices in $ per MMBtu)	California Composite Average Price*	Henry Hub	New York City	Chicago	NYMEX futures contract-January delivery	NYMEX futures contract-February delivery
10/30/2002	4.25	4.33	5.16	4.48	4.457	4.349
10/312002	4.33	4.38	4.98	4.41	4.256	4.171
11/1/2002	4.07	4.06	4.52	4.08	4.165	4.097
11/4/2002	3.93	3.94	4.34	3.91	3.983	3.933
11/5/2002	3.88	3.90	4.42	3.92	3.993	3.953
11/6/2002	3.89	3.93	4.44	3.92	3.971	3.936
11/7/2002	3.89	3.91	4.28	3.85	3.971	3.936
11/8/2002	3.70	3.77	4.03	3.72	4.032	3.975
11/11/2002	3.75	3.83	4.14	3.83	3.910	3.875
11/12/2002	3.72	3.83	4.20	3.85	3.991	3.948
11/13/2002	3.70	3.83	4.21	3.86	3.982	3.936
11/14/2002	3.74	3.90	4.25	3.96	3.984	3.939
11/15/2002	3.63	3.91	4.30	3.92	4.093	4.043
11/18/2002	3.87	4.18	4.60	4.20	4.356	4.271
11/19/2002	3.93	4.25	4.56	4.25	4.352	4.262
11/20/2002	3.92	4.27	4.61	4.26	4.352	4.262
11/21/2002	3.85	4.24	4.59	4.22	4.439	4.342
11/22/2002	3.88	4.32	4.77	4.33	4.357	4.285
11/25/2002	3.99	4.33	4.87	4.42	4.323	4.258
11/26/2002	3.94	4.21	4.90	4.28	4.236	4.186
11/27/2002	4.00	4.19	4.95	4.09	4.200	4.145
12/2/2002	4.01	4.23	6.14	4.17	4.320	4.259

* Average of *NGI*'s reported average prices for: Malin, PG&E citygate, and Southern California Border Average.

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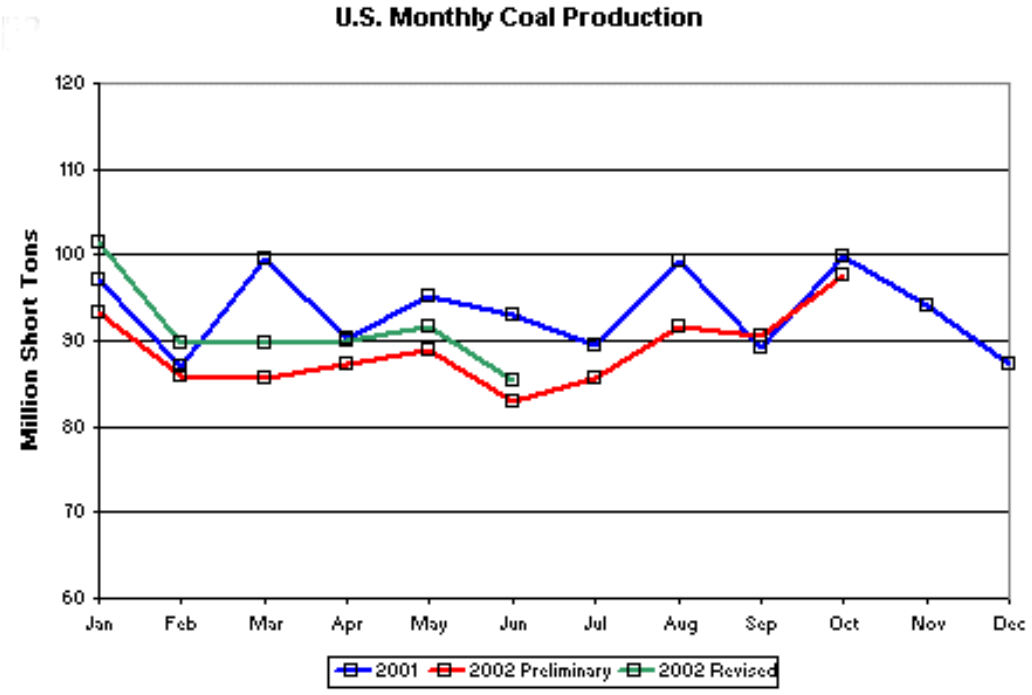
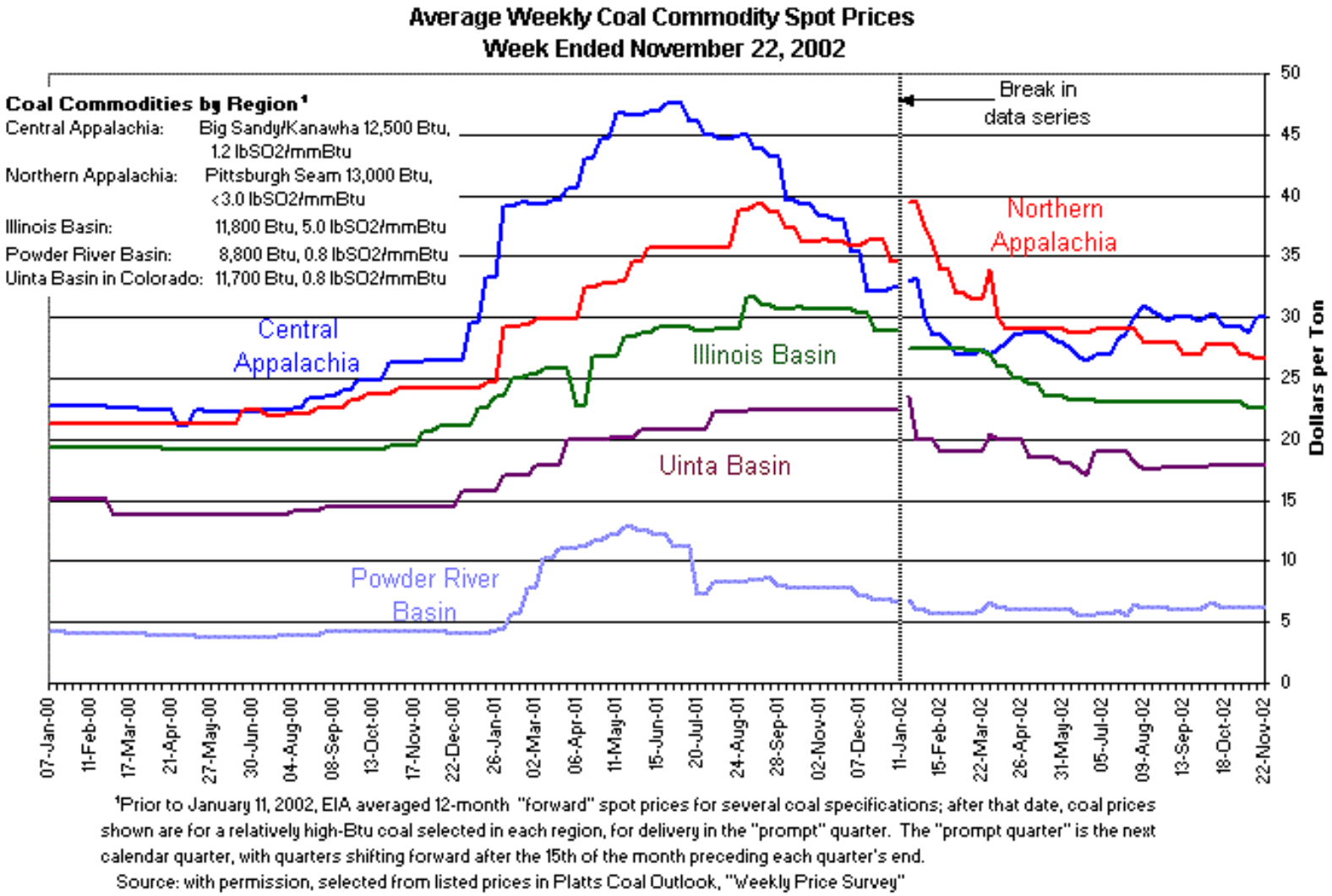
Latest U.S. Coal Information

(last complete update: November 21, 2002)

Coal Production (Updated November 21, 2002)
For the week ended November 16, coal-related statistics were nearly the same as the same week in 2001. Railcar loadings of coal were 0.4% higher than year-ago levels whereas national coal production was 0.2% lower. Year-to-date, estimated western U.S. coal production is only 0.2% below the levels of a year ago; eastern U.S. coal production is estimated to be 5.8% below last year's level. The estimated production for the first 10 months of 2002 is 914.5 million short tons (mmst), 2.7% lower than the 939.9 mmst in the first 10 months of 2001. The estimate incorporates Mine Safety and Health Administration coal production survey data through the second quarter 2002.



Coal Prices
Although spot coal prices continue flat, the Central Appalachian prices are mixed but not down dramatically. The reported drop to $27.25 for average Central Appalachian spot prices in the week ended November 15 was in error – a mix-up with a different Central Appalachian coal price than the Big Sandy/Kanawha coal EIA usually tracks. The correct average price last week was $30.00 per short ton, the same as for the week ended November 22. In fact, prices in all basins for the week ended November 22 Illinois are unchanged from the previous week. Compared to peak prices in summer 2001, Central and Northern Appalachian coal prices are now about $18.00 and $13.00 lower per short ton, respectively, or 37% and 32% lower. The largest change in percentage is for the Powder River Basin coal prices, now settling at half of the late Spring 2001 peak (down by $6.50 per ton, or 51%). Compared to previous price floors in the summer of 2000, the latest EIA-indexed spot prices of $30.00 per short ton for Central Appalachian and $26.65 per short ton for Northern Appalachian coal are higher by 35% and 25% respectively. Other prices also remain higher than the summer 2000 base: by 30% for the Uinta Basin, 18% for the Illinois Basin, and 67% for the Powder River Basin.



¹Prior to January 11, 2002, EIA averaged 12-month "forward" spot prices for several coal specifications; after that date, coal prices shown are for a relatively high-Btu coal selected in each region, for delivery in the "prompt" quarter. The "prompt quarter" is the next calendar quarter, with quarters shifting forward after the 15th of the month preceding each quarter's end.

Source: with permission, selected from listed prices in Platts Coal Outlook, "Weekly Price Survey"

Over-the-counter (OTC) trading volumes on the NYMEX throughout the months of September and October were the lowest since trade was initiated in coal in July 2001. November trading thus far is continuing the trend. The settled prices for near-month deliveries remain around $28 per ton, prices for Central Appalachian coal that major producers have declared untenable. NYMEX prices for early 2003 are below $29, with offers rising to $30 starting in October 2003. Prevailing tepid trade volumes, however, render OTC and NYMEX prices only barely relevant.

Market Trends

At the American Coal Council's 20th annual Coal Market Strategies Conference in October, analysts emphasized the continuing impact of a host of negative factors on coal markets. It was generally agreed that the above normal coal stockpiles at power plants and a number of economic concerns will keep coal prices and purchases low for the rest of 2002, even if the weather becomes colder than normal. A few weeks later, according to comments on third quarter performance by Peabody CEO, Irl Engelhardt, many customers were believed to be bringing stockpiles down to levels lower than historical norms. Arch Energy president and CEO, Steven Leer, voiced similar observations. Arch estimates that utility coal stocks are already in line with the same point in 1999, 2000, and 2001. "It is possible . . . that power producers are planning to operate with stockpiles at levels lower than the historical range," he said. If so, "the long run impact is likely to be a positive one for coal producers, as the market moves toward better overall supply-demand balance" (Coal Transportation Report, November 4).

Meanwhile, broad problems are currently depressing the coal industry, such as: the overall economy; failure or

bankruptcies among last year's ebullient independent power producers (IPPs) and online energy traders; low electricity prices and post-Enron credit problems for electric power producers; relatively low gas prices; operational expediencies of combined-cycle natural gas generators, which sometimes keep them online even when coal-fired dispatch would be cheaper; and reluctance of investors to finance new or innovative coal-based generation, with longer lead-times, greater capital requirements, and uncertain eventual environmental compliance costs.

In addition, the rush by IPPs to build new natural gas-fired units resulted in a glut of shelved gas-fired generating equipment available at bargain prices. This will make new coal-fired plants - normally larger, more capital-intensive, and requiring more lead time than gas-fired plants to permit and build - less attractive for the next year or more and even harder to finance. In the wings, preliminary estimates of probable costs of mercury abatement regulations being considered by the Environmental Protection Agency are projected to be high for coal. Since final standards have not been promulgated, estimates are speculative, but could add $2.6 million per year on the low end to $10.6 million per year on the high end to annualized costs for a 250-megawatt coal-fired power plant. Because of the nature of the mercury and other minerals typically associated with western coal deposits, the higher-end costs are expected for plants burning western subbituminous coals (presentation by Michael Durham, ADA Environmental Solutions, October 16).

Would-be buyers have found coal producers generally unwilling to commit beyond existing contracts at current prices. With some eastern mines still off line, supplies of eastern compliance coal have reportedly been tight and many buyers, either with a stockpile cushion or credit problems, have delayed buys. Citing the high capital costs of opening new coal mines, Consol Energy disclosed on September 24 that the company does not intend to invest in new mines until contract coal prices in Appalachia go above $30 per short ton and buyers are willing to commit to contracts longer than 2 or 3 years (Energy Argus Coal Daily, September 26). Meanwhile, stock market prices for energy trading companies and some utilities have taken heavy losses recently due to bankruptcy announcements and credit downgrades. One effect of these trends is a tightening of new capital, credit, and short-term cash for expansions as well as coal purchases and operating expenses. Concurrently, power plant operators are generally planning for continuing slack demand. The outlook for delayed growth in electricity demand is reflected in EIA's figures for electricity generation capacity additions: 37.0 gigawatts delayed past 2002 and 5.5 gigawatts canceled (http://www.eia.doe.gov/cneaf/electricity/page/capacity/capacity.html). Most of that planned capacity was natural gas-fired. Coal-fired plants are similarly affected but not reflected in 2002 capacity changes because they are longer-term projects.

Coal Producer Issues

Peabody Energy COO Richard Whiting commented at the Coal Market Strategies Conference that his company has moved away from the philosophy of producing as much coal as possible at all times to tailoring production to meet demand. That is, they will be return-on-investment-driven rather than cash-flow driven. In the past few years, companies like Peabody and Consol used IPOs to raise money needed to pay down debt; now they are more focused on profitability. Mr. Whiting noted that productivity gains will inevitably flatten out. Peabody continues to push mining equipment vendors for better technology, but he is concerned about a lack of capital investment in the industry and about low rates of return. Meanwhile, some eastern coal producers grouse that some of their fellow producers are not being disciplined, and that they continue to produce unwanted coal at a time when the market is virtually nonexistent. The major problem for producers, however, is that there is too much “coal on the ground,” (in consumers’ stockpiles). Unless and until colder weather takes hold in the East, with significant consumption of those stocks, buyers simply cannot justify contracting for more coal, even at bargain prices. If consumer stocks are drawn down rapidly, however, producers hope to get the $30+ per ton they are seeking (Coal Outlook, November 18).

John Dean of JD Consulting displayed a graph at the Conference showing that productivity at Powder River Basin (PRB) high-Btu mines (8800 Btu/lb) peaked in 1998 and has declined since. This would reverse the general trend, as PRB productivity had been increasing for many years. An Arch coal speaker was pessimistic about the productivity outlook in both the East and West. Key factors are higher stripping ratios in the PRB as mines progress, thinner seams in

the East, tighter environmental restrictions in the East, and the introduction of inexperienced new miners in the PRB. The one area he was optimistic about was northern Appalachia, where he believes there is significant opportunity to increase output at the longwall mines by upgrading the conveyor systems that move coal out of the mines.

Coal Import Prospects

During the 1980s and 1990s, the U.S. coal industry was often its own worst enemy. Hundreds of large and intermediate coal producers kept much more capacity operational than justified by demand. Hundreds more small producers were on the sidelines ready to fulfill spot and short-term contracts at marginal profits. As a result, coal buyers could shop around and generally find a lower price from a cash-strapped coal producer. Over time, this situation helped extend years of declining real-dollar coal prices. Now, according to a new trade report, Energy Publishing's "Coal Americas," another source of downward pressure on coal prices is in place. It may not be obvious from available 2002 coal import statistics, but foreign coal producers are looking to the United States to expand their markets significantly (Coal Americas, October 21).

Coal Americas' message makes sense. The same major factor EIA believes led to several years of declines in U.S. exports - low international coal prices - has not gone unnoticed by U.S. coal buyers. As fewer, larger leaders in the U.S. industry try to impose market discipline by taking less profitable units off line during the current period of low demand, offshore producers are now vying for a share of the expected market comeback. In 2001, the United States imported nearly 20 mmst of coal, largely from South America - a 58% jump from the 12.5 mmst a year earlier. Imports for January through June 2002 are 7.9 mmst and are on track to reach about 16 mmst, which would still represent growth over the 3-year period.

Energy Publishing lists 18 coal-fired power plants that currently burn at least some imported coal. Nearly every coastal State is represented from Maine to Texas, as well as the Rockport plant in Indiana. The article identifies 46 additional plants situated well to burn imported coal in the future and claims that "the list of U.S. utilities that are eager to explore the possibility of tapping offshore suppliers is continuously growing." As a prime example, the Southern Company with 35,000 megawatts of coal-fired capacity, has long-term contracts in place with American producer Drummond Coal's Colombian operations and has tested Australian and Polish coal. In addition, "valley fill" rulings by U.S. District Judge Charles Haden last summer, which have placed new mining permits in West Virginia on hold, could affect mines supplying both metallurgical coal and premium steam coal. An ongoing legal dispute over overweight coal haul trucks, also in West Virginia, is another factor whose outcome could raise operating costs and prices for domestic coal.

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Latest U.S. Electricity Information

(updated December 3, 2002)

Selected Wholesale Electricity Prices: Spot electricity prices in the Western U.S. increased before the Thanksgiving holiday as the colder weather led to higher customer demand. At Mid-Columbia, a benchmark for the Northwest, prices increased $4.22 per megawatthour between November 26 and December 2. In California, prices were up by $8.10 per megawatthour at NP-15 and $7.01 per megawatthour at SP-15 during the same time period.

In the Midwest, electricity prices reached a six-month low before the Thanksgiving holiday. Despite the cooler temperatures, customer demand was low because of the holiday, and the region had an ample supply of nuclear generation. At the Cinergy Trading Center, prices went down to $14.78 per megawatthour on November 27, and then increased 117% to $32.08 per megawatthour on December 2. The dramatic price increase was attributed to the cold weather causing higher customer demand. Also, Palisades Unit 1 went off-line on December 1 after a ground wire in the switchyard was damaged.

In the Southeast, electricity prices decreased on November 27 and then increased slightly on December 2 as more normal temperatures stabilized customer demand. Within SERC, prices increased $2.07 per megawatthour between November 27 and December 2.

In the Northeast, prices were generally lower before the holiday. After reaching a low of $24.54 per megawatthour on November 27, electricity prices at PJM West jumped $17.69 per megawatthour to a high of $42.23 per megawatthour on December 2. Cooler weather increased customer demand. In New England, prices went down to $42.00 per megawatthour on November 27 and then spiked 21% to $51.00 per megawatthour on December 2. New York City's prices fell to $65.50 per megawatthour on November 26 and 27 and continued to decline to $61.50 per megawatthour on December 2 as warmer weather was predicted to lower customer demand. The region also has enough supply to meet demand.

Over the past seven days, average prices at all trading centers ranged between $36.62 and $41.47 per megawatthour with an overall weekly average of $38.64 per megawatthour.

U.S. Regional Electricity Prices at Major Trading Centers (Dollars per megawatthour)

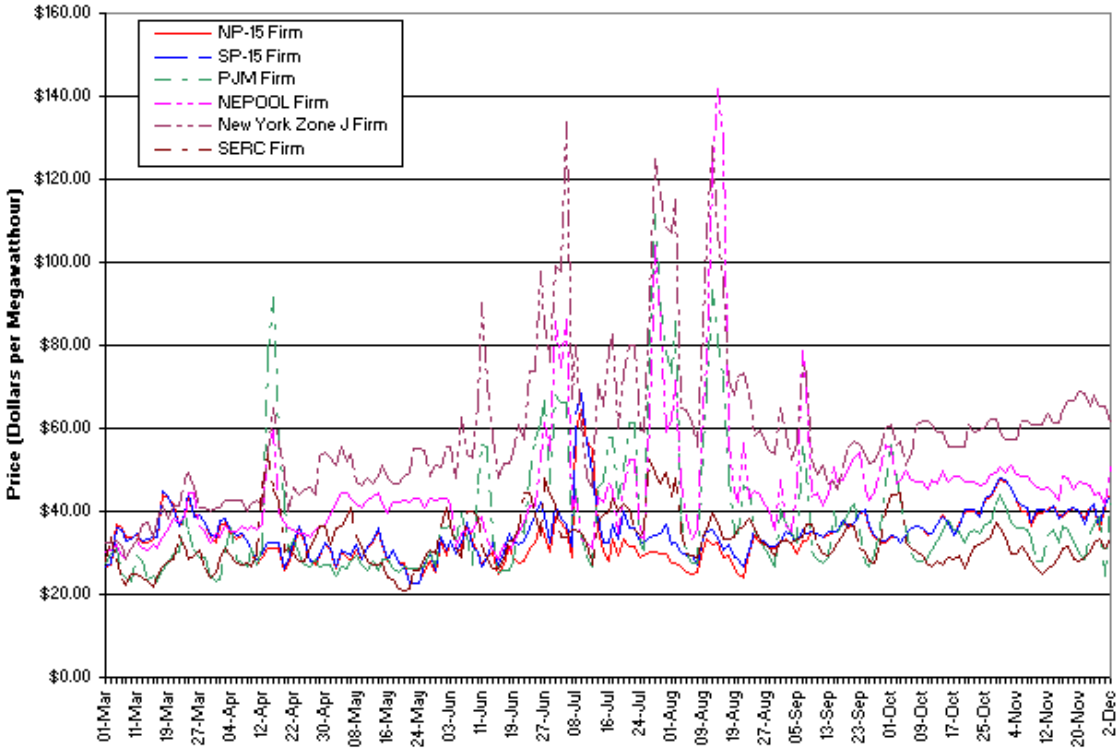
Trading Centers	Date							Price Range		
	11/22/02	11/25/02	11/26/02	11/27/02	11/28/02	11/29/02	12/2/02	Max	Min	Average
	Holiday									
COB	35.75	37.75	32.75	36.56	n.a.	n.a.	40.20	40.20	32.75	36.60
Palo Verde	33.58	35.07	31.16	34.77	n.a.	n.a.	36.14	36.14	31.16	34.14
Mid-Columbia	32.08	36.12	32.14	34.39	n.a.	n.a.	36.36	36.36	32.08	34.22
Mead/Marketplace	36.25	37.17	32.88	37.00	n.a.	n.a.	39.71	39.71	32.88	36.60
4 Corners	34.06	36.25	30.69	35.36	n.a.	n.a.	37.86	37.86	30.69	34.84
NP 15	41.10	41.31	35.71	41.39	n.a.	n.a.	43.81	43.81	35.71	40.66
SP 15	41.06	41.69	36.43	41.90	n.a.	n.a.	43.44	43.44	36.43	40.90
PJM West	34.73	36.88	38.59	24.54	n.a.	n.a.	42.23	42.23	24.54	35.39
NEPOOL	46.25	44.00	44.63	42.00	n.a.	n.a.	51.00	51.00	42.00	45.58
New York Zone J	65.25	68.13	65.50	65.50	n.a.	n.a.	61.50	68.13	61.50	65.18
Cinergy	30.51	33.07	27.10	14.78	n.a.	n.a.	32.08	33.07	14.78	27.51
SERC	30.01	32.42	33.34	31.29	n.a.	n.a.	33.36	33.36	30.01	32.08
Average Price	38.39	39.99	36.74	36.62	n.a.	n.a.	41.47	41.47	36.62	38.64

Sources: COB, Palo Verde, Mid-Columbia, Mead/Market Place, Four Corners, NP-15, SP-15, PJM-West, NEPOOL, New York Zone J, Cinergy, and SERC trading centers. Used with permission from Bloomberg L.P. (www.bloomberg.com).

COB: Average price of electricity traded at the California-Oregon and Nevada-Oregon Borders.
Palo Verde: Average price of electricity traded at Palo Verde and the West Wing, Arizona.
Mid-Columbia: Average price of electricity traded at Mid-Columbia.
Mead/Market Place: Average price of electricity traded at Mead Market Place, McCullough and Eldorado.
Four Corners: Average price of electricity traded at Four Corners, Shiprock, and San Juan, New Mexico.
NP-15: Average price of electricity traded at NP-15.
SP-15: Average price of electricity traded at SP-15.
PJM-West: Average price of electricity traded at PJM Western hub.

PJM-West:	Average price of electricity traded at PJM Western hub.
NEPOOL	Average price of electricity traded at Nepool.
New York Zone J:	Average price of electricity traded at the New York Zone J - New York City.
Cinergy:	Average price of electricity traded into the Cinergy control area.
SERC:	Average price of electricity traded into the Southeastern Electric Reliability Council.

Average Wholesale Electricity Prices in the U.S.



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